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ABSTRACT

In 1991 the Measurement and Evaluation Center of the University of Texas at Austin was asked to develop a test for credit by examination in four lower division courses in Japanese. The test (in Japanese) was constructed from locally developed items provided by instructors of Japanese. The developed test consisted of 80 items distributed among grammar, listening, and reading sections, with the listening section recorded on tape by instructors. The initial version was administered to 166 students in 1 course and 66 in another. Items with poor psychometric properties were edited or removed and new items were introduced. For validation, the revised test was administered to 170 students in spring 1992 (2 second semester courses) and 231 students in fall 1992 (2 first semester courses). Correlation coefficients for all four sections were acceptable. After analyzing the data and meeting with the instructors, test developers set cut scores for credit in each course. These scores allow students to earn credit with grades of A, B, or C. Sixteen tables display student scores, and one figure illustrates the cut scores. (SLD)

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STANDARD SETTING STUDY OF THE UT AUSTIN TEST FOR CREDIT IN JAPANESE: FALL 1991 through SPRING 1993

Steven J. Fitzpatrick, Donald W. McCormack,
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Standard Setting Study of the UT Austin Test for Credit in Japanese:
Fall 1991 Through Spring 1993

Steven J. Fitzpatrick, Donald W. McCormack,
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In the Fall 1991 semester, the Measurement and Evaluation Center (MEC) was asked by the coordinator of lower division Japanese courses in the Department of Oriental and African Languages and Literatures (OAL) to help develop a test for credit by examination in the four lower division Japanese courses (Japanese 506, Japanese 507, Japanese 412K, and Japanese 412L) offered at the University of Texas at Austin (UT Austin). All test items were written by instructors of Japanese and reviewed by staff members from the MEC. The study took place between the Fall 1991 and Spring 1993 semesters, inclusive.

Method

Materials

In consultation with MEC staff members, the UT Austin Test for Credit by Examination in Japanese was constructed from locally developed items provided by instructors of Japanese in the OAL Department. The test consists of eighty items distributed among three sections: grammar, listening, and reading. Forty of the items test grammar skills, twenty test listening skills, and the remaining twenty test reading skills. The item difficulty levels were evenly divided between the four lower division Japanese courses.

The listening section of the test was recorded on tape by the instructors in modern standard Japanese and consists of two parts. The first part contains eight items. The examinee listens to a statement in Japanese and is asked to choose the most appropriate response (in English). For part two of the listening section, there are twelve questions based on a short conversation. All forty of the items in the grammar section require sentence completion. Finally, the reading section contains four passages. For each passage the examinee responds to five questions.

The test was initially administered to all students enrolled in Japanese 506 and Japanese 412K in the Fall of 1991. There were 166 students in the former group and 66 from the latter. Based on the results of an item analysis, test items with poor psychometric properties were edited or removed and new items were introduced. The revised test was administered to all students

registered for Japanese 507 and 412L during the Spring 1992 semester and to all students registered for Japanese 506 and 412K during the Fall 1992 semester. To insure adequate participation, the test accounted for 8% of each student's final grade in the course. All tests were administered during the final examination period.

Subjects

Test validation began in the Fall of 1991. During that semester the test was administered to all students enrolled in Japanese 506 and Japanese 412K. Based on item analysis, the test was revised and readministered during the Spring 1992 and Fall 1992 semesters.

In the Spring 1992 semester, the test was administered to 170 students. One hundred twelve (112) of the 170 students were enrolled in Japanese 507 (second semester Japanese), while the remaining students (58) were enrolled in Japanese 412L (fourth semester Japanese). In the Fall 1992 semester, 231 students were tested. One hundred thirty-nine (139) of the 231 students were enrolled in Japanese 506 (second semester Japanese), while the remaining students (92) were enrolled in Japanese 412K (fourth semester Japanese). The above numbers include students with both a preliminary final grade and a test score. Individuals who failed to take the test or who did not receive a preliminary final grade were excluded from the study.

Procedure

Following administration of the test at the end of each of the three semesters, the test results were collected along with the preliminary course grades. The preliminary course grades were submitted by the instructors as an evaluation of each student's performance on all parts of the required course work except the UT Austin test portion of the final examination grade. In most instances, the faculty members supplied the preliminary grades on two different scales: a numerical percentage-grade scale of 0-100 and the traditional five point letter-grade scale of *A* through *F*. All of the instructors used the traditional cut points of 90, 80, 70 and 65 for the assignment of letter grades. In cases where letter grades were not provided, MEC's data processing division converted the numerical percentage-grade to the letter-grade scale.

Several analyses were then performed. An item analysis was done to determine if there were any items that required revision or removal. Because of the number of such items at the end of the first semester of the study, the test was revised and administered the next semester. Results from the other item analyses (i.e., from the second and third semesters of the study) showed that further

test revision was not needed. These results indicated that the test scores would be appropriate for the analyses required for the setting of cut scores.

Analyses to determine the relationship of student performance on the test, as measured by the Total Raw Score, to student performance in the course, as measured by the Preliminary Course Grade, were then performed. Crosstabulations of test scores and preliminary grades on a five point *A* through *F* scale, by course, with mean scores and standard deviations for students with each letter grade and for all students combined were produced. The frequency distributions of test scores were then collapsed from the five point scale into two groups denoting unsatisfactory performance in the course (Preliminary Course Grades *F* and *D*) and satisfactory course performance (Preliminary Course Grades *C*, *B* and *A*).

Using the descriptive statistics obtained for each course, MEC staff members also calculated the coefficient of correlation between Total Raw Score on the placement test and Preliminary Course Grades. Regression equations were derived from the data in order to predict test scores (Expected Scores) from Preliminary Course Grades on the *A* through *F* scale, and final grades (Expected Grades) in the course from the Total Raw Score on the raw score scale of 0-80.

In addition, staff members of the MEC determined the accuracy of placement decisions that would have occurred at each score interval had students who participated in the study actually been placed in courses according to the scores they made on the test. Accurate placement was labeled as Correct placement; inaccurate placement was classified in terms of two placement errors -- placement Too High and placement Too Low.

Basing their choices on the results of all of the above analyses, MEC staff members then selected for each course a series of recommended decision ("cutting") scores to present to the department. In their selection, they made use of a series of six guidelines often recommended for use by various authorities. Each guideline refers to a specific value obtained in the several analyses of the data collected in the study.

Finally, MEC staff members met with the instructors and reported the results of the testing project, and the instructors submitted sectional grade rosters on which they had recorded a Preliminary Course Grade (defined above) for each student. Four pieces of information included in the test results reported to the instructors were alphabetical section rosters with Listening, Grammar, Reading, and Total Raw Scores and the percentage correct equivalents of the numerical raw scores for each student; similar rosters but with the students' names arranged according to the

descending order of their Total Raw Scores; frequency distributions of the four raw scores, with mean (average) scores and standard deviations (measures of the variability among the scores) for each of the four raw scores; and a breakdown of the number of items answered correctly by each student. MEC staff members also demonstrated how the Total Raw Score could be incorporated into the students' final grade.

Results

The data are presented in four sets of four tables. Each set corresponds to one of the four lower division Japanese courses in this study. Tables 1.1 through 1.4 are based on information from Japanese 506; Tables 2.1 through 2.4 are based on Japanese 507; Tables 3.1 through 3.4, on Japanese 412K; and Tables 4.1 through 4.4, on Japanese 412L. The first table in each set contains a crosstabulation of test scores by preliminary course grades. In addition, expected grade for each test score and expected test score for each preliminary course grade are calculated for each table based on the regression equations shown in the bottom right hand side of the tables. These equations are calculated by using data solely from the course under examination. Expected grades greater than 4.00 are recorded as 4.00. Summary statistics, mean test scores and their standard deviations are provided for each preliminary grade, as well. The second table in each set contains the same crosstabulations as described above except the preliminary course grades are collapsed into two performance categories, unsatisfactory and satisfactory, using the criteria noted earlier. The third table in each set presents information on the placement accuracy for a range of test scores. Each test score is examined as a potential cutoff point for credit in the course under examination. Given the information in the previous table and for each score, it is determined how many individuals from the unsatisfactory group would receive credit (placed too high), how many from the satisfactory group would not receive credit (placed too low), and how many would be correctly placed from each of the two groups. This information is presented as frequencies and percentages examining correct placement for the two groups separately and together (overall accuracy). The final table in each set gives the scores suggested by six guidelines for use in selecting decision scores.

Discussion

Several observations can be made about the data. First, the correlation coefficients for all four sections are acceptable. In previous studies correlations have generally fallen within the range of 0.40 to 0.60. The two lowest correlations, 0.43 for Japanese 506 and 0.47 for Japanese 507, which are at the low end of the range given above, may be due to restriction of range. In both

Table 1.1

End-of-Course Scores on The UT Austin Test for Credit in Japanese in Relation to Performance in Japanese 506: Frequency Distributions, Descriptive Statistics, Regression Equations, Expected Grades, and Expected Scores--Fall, 1992
(N = 139)

		Final Grades in Japanaese 506					
Test Scores	Expected Grades	0 *F*	1 *D*	2 *C*	3 *B*	4 *A*	Total N
49-73	4.00				1	4	5
48	3.97						0
47	3.91						0
46	3.84					1	1
45	3.78						0
44	3.72				1	1	2
43	3.65					3	3
42	3.59			1	1	3	5
41	3.52					3	3
40	3.46				1	2	3
39	3.39				1	5	6
38	3.33			1	3	8	12
37	3.26				1	1	2
36	3.20			2	1	4	7
35	3.14			4	1	6	11
34	3.07				6	10	16
33	3.01		1	2	6	4	13
32	2.94			3	2	1	6
31	2.88		2	4	4		10
30	2.81		1	2	4	1	8
29	2.75		1	1	3	1	6
28	2.69		1	4	1	2	8
27	2.62	1		1	2	1	5
26	2.56	1	1	1	1		4
25	2.49						0
24	2.43				1		1
23	2.36						0
22	2.30						0
21	2.24						0
20	2.17						0
19	2.11					1	1
18	2.04						0
17	1.98						0
16	1.91			1			1
Total		2	7	27	41	62	139
%		1%	5%	19%	30%	45%	100%
Mean Score		26.5	29.7	31.4	33.3	37.6	34.6
Standard Deviation		0.50	2.12	4.71	4.89	7.23	6.59
Expected Score		26	28	31	34	37	

Expected Grade = (Test Score x 0.06433) + 0.8845

Expected Score = (Preliminary Grade x 2.9133) + 25.5068

Mean Grade	Standard Deviation
3.11	0.98

Coefficient of Correlation
r = .4329

Table 1.2

End-of-Course Scores on The UT Austin Test for Credit in Japanese in Relation to Performance in Japanese 506: Combined Frequency Distributions and Descriptive Statistics
Fall, 1992
(N = 139)

	Final Grades in Japanese 506		
Test Scores	Unsatisfactory (0, 1)	Satisfactory (2-4)	Total N
49-73		5	5
48			0
47			0
46		1	1
45			0
44		2	2
43		3	3
42		5	5
41		3	3
40		3	3
39		6	6
38		12	12
37		2	2
36		7	7
35		11	11
34		16	16
33	1	12	13
32		6	6
31	2	8	10
30	1	7	8
29	1	5	6
28	1	7	8
27	1	4	5
26	2	2	4
25			0
24		1	1
23			0
22			0
21			0
20			0
19		1	1
18			0
17			0
16		1	1
Total	9	130	139
%	7%	94%	100%
Mean Score	29.0	34.9	34.6
Standard Deviation	2.31	6.62	6.59

Mean Grade	Standard Deviation
3.11	0.98

Coefficient of Correlation
r = .4329

Table 1.3
Scores on the UT Austin Test for Credit in Japanese in Relation to Student Performance in Japanese 506: Possible Decision Scores and Corresponding Accuracies of Placement--Fall, 1992
(N = 139)

Placement Category	Cumulative Number of Students			Percent of Students in Each Placement Category			Overall Accuracy of Placement		
	Unsatisfactory 0-1 (N = 9)		Satisfactory 2-4 (N = 130)	Unsatisfactory		Satisfactory	Placement Accuracy	Number of Students	% of Students
35 - up	Too High	0	60 Correct	Too High	0%	46% Correct	Too High	0	0%
							Correct	69	50%
Below 35	Correct	9	70 Too Low	Correct	100%	54% Too Low	Too Low	70	50%
34 - up	Too High	0	76 Correct	Too High	0%	58% Correct	Too High	0	0%
							Correct	85	61%
Below 34	Correct	9	54 Too Low	Correct	100%	42% Too Low	Too Low	54	39%
33 - up	Too High	1	88 Correct	Too High	11%	68% Correct	Too High	1	1%
							Correct	96	69%
Below 33	Correct	8	42 Too Low	Correct	89%	32% Too Low	Too Low	42	30%
32 - up	Too High	1	94 Correct	Too High	11%	72% Correct	Too High	1	1%
							Correct	102	73%
Below 32	Correct	8	36 Too Low	Correct	89%	28% Too Low	Too Low	36	26%
31 - up	Too High	3	102 Correct	Too High	33%	78% Correct	Too High	3	2%
							Correct	108	78%
Below 31	Correct	6	28 Too Low	Correct	67%	22% Too Low	Too Low	28	20%
30 - up	Too High	4	109 Correct	Too High	44%	84% Correct	Too High	4	3%
							Correct	114	82%
Below 30	Correct	5	21 Too Low	Correct	56%	16% Too Low	Too Low	21	15%
29 - up	Too High	5	114 Correct	Too High	56%	88% Correct	Too High	5	4%
							Correct	118	85%
Below 29	Correct	4	16 Too Low	Correct	44%	12% Too Low	Too Low	16	12%
28 - up	Too High	6	121 Correct	Too High	67%	93% Correct	Too High	6	4%
							Correct	124	89%
Below 28	Correct	3	9 Too Low	Correct	33%	7% Too Low	Too Low	9	6%
27 - up	Too High	7	125 Correct	Too High	78%	96% Correct	Too High	7	5%
							Correct	127	91%
Below 27	Correct	2	5 Too Low	Correct	22%	4% Too Low	Too Low	5	4%
26 - up	Too High	9	127 Correct	Too High	100%	98% Correct	Too High	9	6%
							Correct	127	91%
Below 26	Correct	0	3 Too Low	Correct	0%	2% Too Low	Too Low	3	2%
24 - up	Too High	9	128 Correct	Too High	100%	98% Correct	Too High	9	6%
							Correct	128	92%
Below 24	Correct	0	2 Too Low	Correct	0%	2% Too Low	Too Low	2	1%
19 - up	Too High	9	129 Correct	Too High	100%	99% Correct	Too High	9	6%
							Correct	129	93%
Below 19	Correct	0	1 Too Low	Correct	0%	1% Too Low	Too Low	1	1%
16 - up	Too High	9	130 Correct	Too High	100%	100% Correct	Too High	9	6%
							Correct	130	94%
Below 16	Correct	0	0 Too Low	Correct	0%	0% Too Low	Too Low	0	0%

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Table 1.4

Scores on The UT Austin Test for Credit In Japanese in Relation to Student Performance in Japanese 506: Scores Suggested by Six Guidelines for Use in Selecting Decision Scores
Fall, 1992
(N = 139)

Guideline	Score
1. Expected Score for students whose performance in course was just minimally satisfactory (i.e., students with preliminary grades of *C*; see Expected Score row at bottom of Table 1.1).	31
2. Score for which Expected Grade was just minimally satisfactory (i.e., *C*; see Expected Grade column in Table 1.1).	18
3. Score for which percents of errors of students in each academic performance category (Unsatisfactory, Satisfactory) were most nearly equal. (See % Too High and % Too Low values in middle columns of Table 1.3.)	31
4. Score for which overall percents of errors were most nearly equal. (See % Too High and % Too Low values in last column of Table 1.3.)	27
5. Score that would have cut off (or held back) approximately the same number of students as were in the Unsatisfactory performance group. (See Table 1.2 for the number of students in the Unsatisfactory group and the test score that most nearly identifies that number of low-scoring students.)	27
6. Score that would have maximized overall accuracy of placement. (See number Correct in next-to-last column of Table 1.3.)	16

Table 2.1
End-of-Course Scores on The UT Austin Test for Credit in Japanese in Relation to Performance in Japanese 507: Frequency Distributions, Descriptive Statistics, Regression Equations, Expected Grades, and Expected Scores--Spring, 1992
(N = 112)

		Final Grades in Japanese 507					
Test Scores	Expected Grades	0 *F*	1 *D*	2 *C*	3 *B*	4 *A*	Total N
57-72	4.00					1	1
56	3.94					1	1
55	3.88					2	2
54	3.81				1	1	2
53	3.75					1	1
52	3.69					4	4
51	3.63					2	2
50	3.57				1	4	5
49	3.51			1		1	2
48	3.45					3	3
47	3.38	1			2	6	9
46	3.32			1		1	2
45	3.26		1		3	2	6
44	3.20			1	3	3	7
43	3.14		1	2		4	7
42	3.08				1	1	2
41	3.01			1	3	1	5
40	2.95				1	2	3
39	2.89				2	2	4
38	2.83		1	2	6	1	10
37	2.77			1	2		3
36	2.71			1	3	1	5
35	2.65	1		2			3
34	2.58			1	1	1	3
33	2.52	1	1	1	1		4
32	2.46			1			1
31	2.40		1			2	3
30	2.34				2		2
29	2.28	1			1		2
28	2.22						0
27	2.15	1		2	1		4
26	2.09			1			1
25	2.03						0
24	1.97			1			1
23	1.91						0
22	1.85				1		1
21	1.78				1		1
Total		5	5	19	36	47	112
%		5%	5%	17%	32%	42%	100%
Mean Score		34.2	38.0	36.2	38.4	46.4	41.2
Standard Deviation		7.00	5.44	6.89	7.05	7.07	8.32
Expected Score		30	34	37	41	45	

Expected Grade = (Test Score x 0.06151) + 0.4929

Expected Score = (Preliminary Grade x 3.639) + 30.1821

Mean Grade	Standard Deviation
3.03	1.08

Coefficient of Correlation
r = .4731

Table 2.2

End-of-Course Scores on The UT Austin Test for Credit in Japanese in Relation to Performance in Japanese 507: Combined Frequency Distributions and Descriptive Statistics--Spring, 1992 (N = 112)

	Final Grades in Japanese 507		
Test Scores	Unsatisfactory (0, 1)	Satisfactory (2-4)	Total N
57-72		1	1
56		1	1
55		2	2
54		2	2
53		1	1
52		4	4
51		2	2
50		5	5
49		2	2
48		3	3
47	1	8	9
46		2	2
45	1	5	6
44		7	7
43	1	6	7
42		2	2
41		5	5
40		3	3
39		4	4
38	1	9	10
37		3	3
36		5	5
35	1	2	3
34		3	3
33	2	2	4
32		1	1
31	1	2	3
30		2	2
29	1	1	2
28			0
27	1	3	4
26		1	1
25			0
24		1	1
23			0
22		1	1
21		1	1
Total	10	102	112
%	9%	91%	100%
Mean Score	36.1	41.7	41.2
Standard Deviation	6.55	8.30	8.32

Mean Grade	Standard Deviation
3.03	1.08

Coefficient of Correlation
r = .4731

Table 2.3
Scores on the UT Austin Test for Credit in Japanese in Relation to Student Performance in Japanese 507: Possible Decision Scores and Corresponding Accuracies of Placement--Spring, 1992
(N = 112)

Place-ment Category	Cumulative Number of Students				Percent of Students in Each Placement Category			Overall Accuracy of Placement		
	Unsatisfactory 0-1 (N = 10)		Satisfactory 2-4 (N = 102)		Unsatisfactory		Satisfactory	Placement Accuracy	Number of Students	% of Students
41 - up	Too High	3	58	Correct	Too High	30%	57% Correct	Too High	3	3%
								Correct	65	58%
Below 41	Correct	7	44	Too Low	Correct	70%	43% Too Low	Too Low	44	39%
40 - up	Too High	3	61	Correct	Too High	30%	60% Correct	Too High	3	3%
								Correct	68	61%
Below 40	Correct	7	41	Too Low	Correct	70%	40% Too Low	Too Low	41	37%
39 - up	Too High	3	65	Correct	Too High	30%	64% Correct	Too High	3	3%
								Correct	72	64%
Below 39	Correct	7	37	Too Low	Correct	70%	36% Too Low	Too Low	37	33%
38 - up	Too High	4	74	Correct	Too High	40%	73% Correct	Too High	4	4%
								Correct	80	71%
Below 38	Correct	6	28	Too Low	Correct	60%	27% Too Low	Too Low	28	25%
37 - up	Too High	4	77	Correct	Too High	40%	75% Correct	Too High	4	4%
								Correct	83	74%
Below 37	Correct	6	25	Too Low	Correct	60%	25% Too Low	Too Low	25	22%
36 - up	Too High	4	82	Correct	Too High	40%	80% Correct	Too High	4	4%
								Correct	88	79%
Below 36	Correct	6	20	Too Low	Correct	60%	20% Too Low	Too Low	20	18%
35 - up	Too High	5	84	Correct	Too High	50%	82% Correct	Too High	5	4%
								Correct	89	79%
Below 35	Correct	5	18	Too Low	Correct	50%	18% Too Low	Too Low	18	16%
34 - up	Too High	5	87	Correct	Too High	50%	85% Correct	Too High	5	4%
								Correct	92	82%
Below 34	Correct	5	15	Too Low	Correct	50%	15% Too Low	Too Low	15	13%
33 - up	Too High	7	89	Correct	Too High	70%	87% Correct	Too High	7	6%
								Correct	92	82%
Below 33	Correct	3	13	Too Low	Correct	30%	13% Too Low	Too Low	13	12%
32 - up	Too High	7	90	Correct	Too High	70%	88% Correct	Too High	7	6%
								Correct	93	83%
Below 32	Correct	3	12	Too Low	Correct	30%	12% Too Low	Too Low	12	11%
29 - up	Too High	9	95	Correct	Too High	90%	93% Correct	Too High	9	8%
								Correct	96	86%
Below 29	Correct	1	7	Too Low	Correct	10%	7% Too Low	Too Low	7	6%
26 - up	Too High	10	99	Correct	Too High	100%	97% Correct	Too High	10	9%
								Correct	99	88%
Below 26	Correct	0	3	Too Low	Correct	0%	3% Too Low	Too Low	3	3%
23 - up	Too High	10	100	Correct	Too High	100%	98% Correct	Too High	10	9%
								Correct	100	89%
Below 23	Correct	0	2	Too Low	Correct	0%	2% Too Low	Too Low	2	2%

Table 2.4

Scores on The UT Austin Test for Credit In Japanese in Relation to Student Performance in Japanese 507: Scores Suggested by Six Guidelines for Use in Selecting Decision Scores
Spring, 1992
(N = 112)

Guideline	Score
1. Expected Score for students whose performance in course was just minimally satisfactory (i.e., students with preliminary grades of *C*; see Expected Score row at bottom of Table 2.1).	37
2. Score for which Expected Grade was just minimally satisfactory (i.e., *C*; see Expected Grade column in Table 2.1).	25
3. Score for which percents of errors of students in each academic performance category (Unsatisfactory, Satisfactory) were most nearly equal. (See % Too High and % Too Low values in middle columns of Table 2.3.)	39
4. Score for which overall percents of errors were most nearly equal. (See % Too High and % Too Low values in last column of Table 2.3.)	30
5. Score that would have cut off (or held back) approximately the same number of students as were in the Unsatisfactory performance group. (See Table 2.2 for the number of students in the Unsatisfactory group and the test score that most nearly identifies that number of low-scoring students.)	30
6. Score that would have maximized overall accuracy of placement. (See number Correct in next-to-last column of Table 2.3.)	21

Table 3.1

End-of-Course Scores on The UT Austin Test for Credit in Japanese in Relation to Performance in Japanese 412K: Frequency Distributions, Descriptive Statistics, Regression Equations, Expected Grades, and Expected Scores--Fall, 1992
(N = 92)

		Final Grades in Japanaese 412K					
Test Scores	Expected Grades	0 *F*	1 *D*	2 *C*	3 *B*	4 *A*	Total N
66-74	4.00				2	5	7
65	3.96			1			1
64	3.87					1	1
63	3.78				1	1	2
62	3.69				2	1	3
61	3.59						0
60	3.50			1		2	3
59	3.41				1	1	2
58	3.31					2	2
57	3.22			1	1	2	4
56	3.13				2	2	4
55	3.04					2	2
54	2.94			1	1	2	4
53	2.85				1	3	4
52	2.76		2			2	4
51	2.67			1	1	4	6
50	2.57			2	1		3
49	2.48		2	1	2	1	6
48	2.39						0
47	2.30		1		3		4
46	2.20			1	2		3
45	2.11			2	1		3
44	2.02	1	1		1		3
43	1.93				3		3
42	1.83				1		1
41	1.74	1		1			2
40-33	1.00-1.65	8	4	1	2		15
Total		10	10	13	28	31	92
%		11%	11%	14%	30%	34%	100%
Mean Score		37.4	43.7	50.1	50.9	57.8	50.8
Standard Deviation		3.35	6.87	7.25	8.36	6.45	9.51
Expected Score		38	43	48	52	57	

Expected Grade = (Test Score x 0.0926) - 2.0561

Expected Score = (Preliminary Grade x 4.7347) + 38.2907

Mean Grade	Standard Deviation
2.65	1.33

Coefficient of Correlation
r = .6621

Table 3.2

End-of-Course Scores on The UT Austin Test for Credit in Japanese in Relation to Performance in Japanese 412K: Combined Frequency Distributions and Descriptive Statistics
Fall, 1992
(N = 92)

	Final Grades in Japanese 412K		
Test Scores	Unsatisfactory (0, 1)	Satisfactory (2-4)	Total N
66-74		7	7
65		1	1
64		1	1
63		2	2
62		3	3
61			0
60		3	3
59		2	2
58		2	2
57		4	4
56		4	4
55		2	2
54		4	4
53		4	4
52	2	2	4
51		6	6
50		3	3
49	2	4	6
48			0
47	1	3	4
46		3	3
45		3	3
44	2	1	3
43		3	3
42		1	1
41	1	1	2
40-33	12	3	15
Total	20	72	92
%	22%	78%	100%
Mean Score	40.6	53.7	50.8
Standard Deviation	6.26	8.19	9.51

Mean Grade	Standard Deviation
2.65	1.33

Coefficient of Correlation
r = .6621

Table 3.3
Scores on the UT Austin Test for Credit in Japanese in Relation to Student Performance in Japanese 412K: Possible Decision Scores and Corresponding Accuracies of Placement--Fall, 1992
(N = 92)

Placement Category	Cumulative Number of Students				Percent of Students in Each Placement Category		Overall Accuracy of Placement		
	Unsatisfactory 0-1 (N = 20)		Satisfactory 2-4 (N = 72)		Unsatisfactory	Satisfactory	Placement Accuracy	Number of Students	% of Students
53 - up	Too High	0	39	Correct	Too High 0%	54% Correct	Too High	0	0%
							Correct	59	64%
Below 53	Correct	20	33	Too Low	Correct 100%	46% Too Low	Too Low	33	36%
52 - up	Too High	2	41	Correct	Too High 10%	57% Correct	Too High	2	2%
							Correct	59	64%
Below 52	Correct	18	31	Too Low	Correct 90%	43% Too Low	Too Low	31	34%
51 - up	Too High	2	47	Correct	Too High 10%	65% Correct	Too High	2	2%
							Correct	65	71%
Below 51	Correct	18	25	Too Low	Correct 90%	35% Too Low	Too Low	25	27%
50 - up	Too High	2	50	Correct	Too High 10%	69% Correct	Too High	2	2%
							Correct	68	74%
Below 50	Correct	18	22	Too Low	Correct 90%	31% Too Low	Too Low	22	24%
49 - up	Too High	4	54	Correct	Too High 20%	75% Correct	Too High	4	4%
							Correct	70	76%
Below 49	Correct	16	18	Too Low	Correct 80%	25% Too Low	Too Low	18	20%
48 - up	Too High	4	54	Correct	Too High 20%	75% Correct	Too High	4	4%
							Correct	70	76%
Below 48	Correct	16	18	Too Low	Correct 80%	25% Too Low	Too Low	18	20%
47 - up	Too High	5	57	Correct	Too High 25%	79% Correct	Too High	5	5%
							Correct	72	78%
Below 47	Correct	15	15	Too Low	Correct 75%	21% Too Low	Too Low	15	16%
46 - up	Too High	5	60	Correct	Too High 25%	83% Correct	Too High	5	5%
							Correct	75	82%
Below 46	Correct	15	12	Too Low	Correct 75%	17% Too Low	Too Low	12	13%
45 - up	Too High	5	63	Correct	Too High 25%	88% Correct	Too High	5	5%
							Correct	78	85%
Below 45	Correct	15	9	Too Low	Correct 75%	13% Too Low	Too Low	9	10%
44 - up	Too High	7	64	Correct	Too High 35%	89% Correct	Too High	7	8%
							Correct	77	84%
Below 44	Correct	13	8	Too Low	Correct 65%	11% Too Low	Too Low	8	9%
43 - up	Too High	7	67	Correct	Too High 35%	93% Correct	Too High	7	8%
							Correct	80	87%
Below 43	Correct	13	5	Too Low	Correct 65%	7% Too Low	Too Low	5	5%
42 - up	Too High	7	68	Correct	Too High 35%	94% Correct	Too High	7	8%
							Correct	81	88%
Below 42	Correct	13	4	Too Low	Correct 65%	6% Too Low	Too Low	4	4%
41 - up	Too High	8	69	Correct	Too High 40%	96% Correct	Too High	8	9%
							Correct	81	88%
Below 41	Correct	12	3	Too Low	Correct 60%	4% Too Low	Too Low	3	3%

Table 3.4

Scores on The UT Austin Test for Credit In Japanese in Relation to Student Performance in Japanese 412K: Scores Suggested by Six Guidelines for Use in Selecting Decision Scores
Fall, 1992
(N = 92)

Guideline	Score
1. Expected Score for students whose performance in course was just minimally satisfactory (i.e., students with preliminary grades of *C*; see Expected Score row at bottom of Table 3.1).	48
2. Score for which Expected Grade was just minimally satisfactory (i.e., *C*; see Expected Grade column in Table 3.1).	44
3. Score for which percents of errors of students in each academic performance category (Unsatisfactory, Satisfactory) were most nearly equal. (See % Too High and % Too Low values in middle columns of Table 3.3.)	47
4. Score for which overall percents of errors were most nearly equal. (See % Too High and % Too Low values in last column of Table 3.3.)	44
5. Score that would have cut off (or held back) approximately the same number of students as were in the Unsatisfactory performance group. (See Table 3.2 for the number of students in the Unsatisfactory group and the test score that most nearly identifies that number of low-scoring students.)	44
6. Score that would have maximized overall accuracy of placement. (See number Correct in next-to-last column of Table 3.3.)	42

Table 4.1
End-of-Course Scores on The UT Austin Test for Credit in Japanese in Relation to Performance in Japanese 412L: Frequency Distributions, Descriptive Statistics, Regression Equations, Expected Grades, and Expected Scores--Spring, 1992
N = 58

		Final Grades in Japanese 412L					
Test Scores	Expected Grades	0 F	1 D	2 C	3 B	4 A	Total N
73-79	3.92-4.00					5	5
72	3.86					2	2
71	3.80					1	1
70	3.74					1	1
69	3.68					1	1
68	3.62				1	1	2
67	3.56					1	1
66	3.51					2	2
65	3.45						0
64	3.39				1		1
63	3.33					2	2
62	3.27				1		1
61	3.21						0
60	3.15				1		1
59	3.09			1	2		3
58	3.03				2		2
57	2.97			1		1	2
56	2.91			1	1		2
55	2.86			1	4		5
54	2.80			1	1		2
53	2.74			1	1		2
52	2.68				4		4
51	2.62				1		1
50	2.56			1			1
49	2.50		1	1	1		3
48	2.44						0
47	2.38			1	1		2
46	2.32				2		2
45	2.26	1			2		3
44	2.21			1			1
43	2.15			1			1
42	2.09						0
41	2.03			1			1
40	1.97						0
39	1.91						0
38	1.85						0
37	1.79				1		1
Total		1	1	12	27	17	58
%		2%	2%	21%	47%	29%	100%
Mean Score		45.0	49.0	50.7	53.5	69.7	57.4
Standard Deviation		0.00	0.00	5.68	6.55	5.57	10.02
Expected Score		33	41	49	57	66	

Expected Grade = (Test Score x 0.05908) - 0.3942

Expected Score = (Preliminary Grade x 8.1905) + 32.8768

Mean Grade	Standard Deviation
3.00	0.85

Coefficient of Correlation
$r = .6956$

Table 4.2

End-of-Course Scores on The UT Austin Test for Credit in Japanese in Relation to Performance in Japanese 412L: Combined Frequency Distributions and Descriptive Statistics--Spring, 1992
(N = 58)

	Final Grades in Japanese 412L		
Test Scores	Unsatisfactory (0, 1)	Satisfactory (2-4)	Total N
73-79		5	5
72		2	2
71		1	1
70		1	1
69		1	1
68		2	2
67		1	1
66		2	2
65			0
64		1	1
63		2	2
62		1	1
61			0
60		1	1
59		3	3
58		2	2
57		2	2
56		2	2
55		5	5
54		2	2
53		2	2
52		4	4
51		1	1
50		1	1
49	1	2	3
48			0
47		2	2
46		2	2
45	1	2	3
44		1	1
43		1	1
42			0
41		1	1
40			0
39			0
38			0
37		1	1
Total	2	56	58
%	3%	97%	100%
Mean Score	47.0	57.8	57.4
Standard Deviation	2.00	9.99	10.02

Mean Grade	Standard Deviation
3.00	0.85

Coefficient of Correlation
$r = .6956$

Table 4.3
Scores on the UT Austin Test for Credit in Japanese in Relation to Student Performance in Japanese 412L: Possible Decision Scores and Corresponding Accuracies of Placement--Spring, 1992
(N = 58)

Placement Category	Cumulative Number of Students				Percent of Students in Each Placement Category				Overall Accuracy of Placement		
	Unsatisfactory 0-1 (N = 2)		Satisfactory 2-4 (N = 56)		Unsatisfactory		Satisfactory		Placement Accuracy	Number of Students	% of Students
53 - up	Too High	0	38	Correct	Too High	0%	68%	Correct	Too High	0	0%
									Correct	40	69%
Below 53	Correct	2	18	Too Low	Correct	100%	32%	Too Low	Too Low	18	31%
52 - up	Too High	0	42	Correct	Too High	0%	75%	Correct	Too High	0	0%
									Correct	44	76%
Below 52	Correct	2	14	Too Low	Correct	100%	25%	Too Low	Too Low	14	24%
51 - up	Too High	0	43	Correct	Too High	0%	77%	Correct	Too High	0	0%
									Correct	45	78%
Below 51	Correct	2	13	Too Low	Correct	100%	23%	Too Low	Too Low	13	22%
50 - up	Too High	0	44	Correct	Too High	0%	79%	Correct	Too High	0	0%
									Correct	46	79%
Below 50	Correct	2	12	Too Low	Correct	100%	21%	Too Low	Too Low	12	21%
49 - up	Too High	1	46	Correct	Too High	50%	82%	Correct	Too High	1	2%
									Correct	47	81%
Below 49	Correct	1	10	Too Low	Correct	50%	18%	Too Low	Too Low	10	17%
48 - up	Too High	1	46	Correct	Too High	50%	82%	Correct	Too High	1	2%
									Correct	47	81%
Below 48	Correct	1	10	Too Low	Correct	50%	18%	Too Low	Too Low	10	17%
47 - up	Too High	1	48	Correct	Too High	50%	86%	Correct	Too High	1	2%
									Correct	49	84%
Below 47	Correct	1	8	Too Low	Correct	50%	14%	Too Low	Too Low	8	14%
46 - up	Too High	1	50	Correct	Too High	50%	89%	Correct	Too High	1	2%
									Correct	51	88%
Below 46	Correct	1	6	Too Low	Correct	50%	11%	Too Low	Too Low	6	10%
45 - up	Too High	2	52	Correct	Too High	100%	93%	Correct	Too High	2	3%
									Correct	52	90%
Below 45	Correct	0	4	Too Low	Correct	0%	7%	Too Low	Too Low	4	7%
44 - up	Too High	2	53	Correct	Too High	100%	95%	Correct	Too High	2	3%
									Correct	53	91%
Below 44	Correct	0	3	Too Low	Correct	0%	5%	Too Low	Too Low	3	5%
41 - up	Too High	2	55	Correct	Too High	100%	98%	Correct	Too High	2	3%
									Correct	55	95%
Below 41	Correct	0	1	Too Low	Correct	0%	2%	Too Low	Too Low	1	2%
39 - up	Too High	2	55	Correct	Too High	100%	98%	Correct	Too High	2	3%
									Correct	55	95%
Below 39	Correct	0	1	Too Low	Correct	0%	2%	Too Low	Too Low	1	2%
37 - up	Too High	2	56	Correct	Too High	100%	100%	Correct	Too High	2	3%
									Correct	56	97%
Below 37	Correct	0	0	Too Low	Correct	0%	0%	Too Low	Too Low	0	0%

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Table 4.4

Scores on The UT Austin Test for Credit in Japanese in Relation to Student Performance in Japanese 412L: Scores Suggested by Six Guidelines for Use in Selecting Decision Scores
Spring, 1992
(N = 58)

Guideline	Score
1. Expected Score for students whose performance in course was just minimally satisfactory (i.e., students with preliminary grades of *C*; see Expected Score row at bottom of Table 4.1).	49
2. Score for which Expected Grade was just minimally satisfactory (i.e., *C*; see Expected Grade column in Table 4.1).	41
3. Score for which percents of errors of students in each academic performance category (Unsatisfactory, Satisfactory) were most nearly equal. (See % Too High and % Too Low values in middle columns of Table 4.3.)	50
4. Score for which overall percents of errors were most nearly equal. (See % Too High and % Too Low values in last column of Table 4.3.)	43
5. Score that would have cut off (or held back) approximately the same number of students as were in the Unsatisfactory performance group. (See Table 4.2 for the number of students in the Unsatisfactory group and the test score that most nearly identifies that number of low-scoring students.)	43
6. Score that would have maximized overall accuracy of placement. (See number Correct in next-to-last column of Table 4.3.)	37

these courses the distribution of grades was skewed towards the higher grades; that is, more people received the grades of *A* and *B* than the grades of *F*, *D*, or *C*. Second, overall mean test score increased from the sequence of courses Japanese 506 to Japanese 412L. This is to be expected. On average, a student in Japanese 412K, say, should perform better than students in Japanese 506 and Japanese 507 but not as well as students in Japanese 412L. Third, within any course, mean score increased as preliminary final grade increased. For example, students who earned the preliminary grade of *A* had, on average, a higher test score than did all other students. Students who earned a grade of *B* had a higher average score than did all students except the *A* students, and so on. In addition, for any preliminary grade, mean test scores increased as the course level increased. Students in Japanese 507 who received the preliminary grade of *C* had a higher mean test score than *C* students in Japanese 506, but a lower mean test score than students in both Japanese 412K and 412L. These two findings are congruent with what one would expect, namely, that the better performing students, both within a course and across courses in a sequence, have a higher mean test score than do less well performing students. Finally, expected score increases in a fashion similar to the mean test scores. This is to be expected given the distribution of grades in the four courses.

Recommendations and Decisions

After analyzing the data and meeting with the instructors of Japanese courses, a set of cut scores was determined for credit in each course. These scores allow students to earn credit in each of the four lower division Japanese courses with a grade of *A*, *B*, or *C*. Students may, if they desire, request credit only, rather than a letter grade, provided that they have attained a cut score that would allow them to petition for credit. The scores decided on are presented in Figure 1.

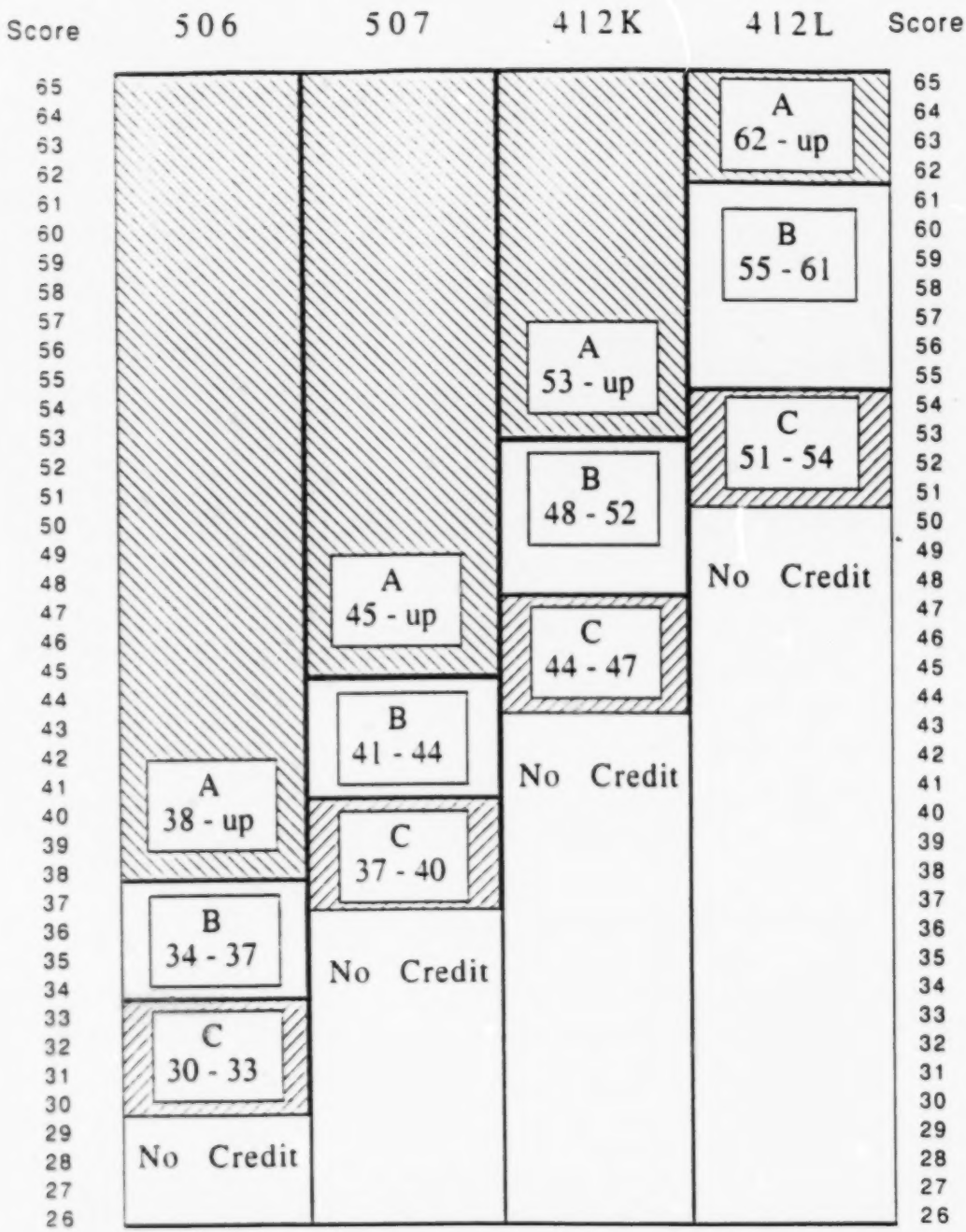

Figure 1. Credit awarded at UT Austin in lower division Japanese courses for various scores on the Placement Test.